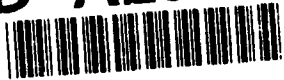


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AN EXPLORATION OF COHESION IN THE LAND OF
COMBAT SERVICE SUPPORT

A Monograph
by

Major Robert C. Todd
Aviation

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School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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MONOGRAPH APPROVAL

Major Robert C. Todd

Title of Monograph: An Exploration of Cohesion in the Land of
Combat Service Support.

Approved by:

James W. Townsend

COL James W. Townsend, MA

Monograph Director

James R. McDonough

COL James R. McDonough, MS

Director, School of
Advanced Military
Studies

Philip J. Brookes

Philip J. Brookes, Ph. D.

Director, Graduate
Degree Program

Accepted this 31st day of December 1991

ABSTRACT

AN EXPLORATION OF COHESION IN THE LAND OF COMBAT SERVICE SUPPORT
by MAJ Robert C. Todd, USA, 50 pages.

This monograph explores cohesion as it applies to combat service support (CSS) soldiers. The exploration begins with the construction of a base camp constructed of materials from the study of infantry cohesion. While building the base camp the paper defines cohesion and explores its component parts of horizontal, vertical, organizational, and societal bonding. It covers how to build cohesion to include: shared experiences, group After Action Reviews (AAR), vigorous training, family factors in building and maintaining cohesion, physical fitness, and technical and tactical proficiency. The Lego Model of Cohesion, a method for visualizing the cohesion process, is the final item presented at the base camp.

After completing the base camp, the reader departs for the actual exploration of the Land of CSS. The exploration covers who the inhabitants are, where they "live," and examines their national product of support. The paper introduces an economic system that explains the method of emotionally paying CSS soldiers in credits that come from the success of combat units.

The monograph concludes that CSS leaders will gain the full power of cohesion only when they form an organizational bond to the supported unit, and teach their soldiers to measure success by the success of the combat unit.

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1. INTRODUCTION

We few, we happy few, we band of brothers;
For he to-day that sheds his blood with me
Shall be my brother: be he ne'er so vile.¹

1.1. The Intent of the Exploration.

The Battle of St. Vith, Belgium, was a "non-linear battlefield" for the soldiers of the 7th Armored Division Trains. From the time they moved into the La Roche-Samree area, approximately forty miles west of St. Vith, on December 17, 1944, they had to fight off German attacks and run a gauntlet of ambushes along the roads between the trains and the combat units at St. Vith.

The combat service support (CSS) soldiers of the trains never lost sight of their mission of supporting the division, even while fighting for their own survival. The crowning point of their sustainment efforts came on December 22, 1944, when a convoy of fuel, ammunition, and ration trucks made it through to the division's combat elements. Repaired combat vehicles, crewed by mechanics, were the escort as the convoy fought its way through ambushes to save the division.²

The Presidential Unit Citation recommendation for the 7th Armored Division states that the devotion to duty of the soldiers in the convoy "saved the division and its attached units from almost certain disaster during the ordered withdrawal which took place the next day. Without the gasoline, many vehicles would have to have been abandoned. The artillery and other ammunition they brought held the enemy at bay until the Salm River was crossed."³

The soldiers of the 7th Division trains displayed cohesion among themselves and with the division. They held together to win the battle in the rear area while continuing to support. Reaching this standard of cohesion, and in turn support, should be the goal of every CSS soldier and leader.

This paper explores cohesion for the CSS soldier. It answers the questions of: (1) What is cohesion? (2) What are its component parts? (3) How do units build cohesion? (4) What do CSS soldiers and leaders need to do to put cohesion to work as a combat multiplier?

From the answers to these questions the exploration will discover that *CSS leaders will gain the full power of cohesion as a combat multiplier only when they form an organizational bond to the supported unit, and teach their soldiers to measure success by the success of the combat unit.*

To understand cohesion for CSS soldiers we must first understand it for infantry soldiers. Understanding cohesion for the infantryman is the departure point for any exploration of cohesion. As Ardant du Picq pointed out: "He who knows the morale of the infantryman, which is put to the hardest proof, knows the morale of all combatants."⁴

When the explorer leaves the infantry base of knowledge he will be in largely uncharted territory. Only a few other areas, such as cohesion among Israeli tank crews during the 1973 war,⁵ have been mapped. The terrain becomes less explored the further one moves from the infantry base. A map made in the old style would label the Land of Combat Service Support (CSS) as *terra incognita* (unknown land). I. N. Evonic, a Canadian, ventured into this unexplored area in 1980. He concluded that the area was large, and needed to be explored.⁶

1.2. The Plan for the Exploration

The exploration of cohesion for CSS soldiers will start where Du Picq recommended: with the infantryman.

The first step in the exploration will be building a base camp using materials provided by the study of infantry cohesion. When the base camp is complete we will know what cohesion is, what its components are, and how to build it.

The last task before leaving the base camp will be to build a model of cohesion. We will use this model, and the knowledge gained while building the base camp, to explore cohesion in the Land of CSS.

2. BUILDING THE BASE CAMP

2.1. The Foundation

Before the late nineteenth century, armies based cohesion on the close physical proximity of another soldier. Ardant du Picq called this "material cohesion."⁷ Understanding the behavior of soldiers in these old formations is a stepping-stone to understanding cohesion today.

Thucydides recounts how soldiers during the Peloponnesian War sought protection by shifting to the right so that the shield of the next soldier would cover their unguarded side. These soldiers sought the protection of their comrades in arms by literally standing shoulder to shoulder.⁸

Weapons changed from spears and swords to muskets and cannon between the days of Thucydides and Napoleon; but the close formation lived on. The close formation was easy to control; leaders could physically maintain the formation's cohesion. The standard arms of NCOs and officers during the Napoleonic Wars were the halbard and sword. These weapons may not have had much offensive value, but they worked to stop soldiers from running away. A halbard held horizontally in both hands was a good tool to press against the back of a rank to hold the men in place.⁹ Physical cohesion, coerced when necessary, was the type known to Napoleon and his foes.

Not all cohesion had to be coerced; many men refused to break ranks because of honor. During the Battle of Waterloo a British soldier watched a cannonball coming directly at him. He could have stepped aside and avoided death, but he stood fast.¹⁰ He based his actions upon a code of honor and the expectations of his fellow soldiers.¹¹

Maintaining cohesion by a code of honor or physical means was possible because a soldier's actions, good or bad, were visible to his fellow soldiers and leaders in close formations. Soldiers could easily see each other. Leaders used visual example, and physical means, to maintain "material cohesion." But the days of these techniques were numbered. The winds of change were starting to blow as the grass covered the blood of unflinching soldiers, and hid the wounded earth of Napoleon's battlefields.

The introduction of breech-loading rifled-muskets and improved artillery made the battlefield a deadlier place. The breech-loader increased the rate of fire, and allowed the soldier to fire from the prone position. Against this increased fire the upright soldier was an easy target. Soldiers dispersed, and fought from the prone position, to survive. A prone soldier was hard for the enemy to see and hit, but hard for his fellow soldiers to see as well. The close battlefield changed to a dispersed one. The "material cohesion" of a tightly controlled formation was gone; armies needed a new type of cohesion.

Ardant du Picq, a French Colonel killed at Metz (1870) during the opening days of the Franco-Prussian War, was the first to address the reality of a dispersed battlefield and its impact on the soldier. Dispersion translated to isolation for the individual soldier.

Fighting in close groups checked individual weaknesses; it was difficult not to fight. Things were different for the soldier on a dispersed battlefield because there was the possibility of hiding to avoid the fight.

Survival on this new battlefield was a different proposition. Skill had always held a certain guarantee of survival in the past. Du Picq saw no guarantees on the modern dispersed battlefield; death was literally in the air.¹² Individual skill no longer ensured victory or survival. The best chance of victory and survival was teamwork.

Teamwork was the key to victory and survival, but getting soldiers to fight as a team was no longer the province of physical control measures or Draconian discipline. However, losing the ability to physically enforce discipline on the battlefield did not eliminate the requirement for discipline; it increased it. Soldiers needed self-discipline to advance and fight without a halbard, or sword at their back. Du Picq substituted the old ideas of discipline for one where discipline was a state of mind, grounded in the values of the nation, and drawing strength from a spirit of unity and cohesion.¹³

Du Picq believed that unity produced fighters. The isolated man on the dispersed battlefield needed assurance of mutual support as much as the soldier in the days of Thucydides needed a companion's shield. Unfortunately, the option of shifting right was gone; the soldier no longer stood shoulder to shoulder in rank or square. The way to restore unity was to replace the physical assurance of mutual support with moral assurance. Moral assurance would come from soldiers who knew and trusted each other.¹⁴

The reason for seeking cohesion is to generate combat power. It allows the human heart to overcome its weakness at the moment of battle. The terrorizing capacity of battle has increased but the heart of man does not change.¹⁵ Lord Moran wrote in Anatomy of Courage, that the heart that allowed Wellington's soldier to stand fast in front of a cannonball was the same heart that would either stand and fire, or break and run, when a Stuka dive bomber plunged down with sirens screaming.¹⁶

Cohesion that would generate combat power meant discipline for Du Picq. The measure of a unit's cohesion was its discipline. Discipline grew from unity, obtained from a pride that flourished where men knew each other well, and had esprit de corps.¹⁷

Soldiers would do their duty because the bonds with their fellow soldiers required it. Each soldier on the dispersed battlefield needed to believe that his fellow soldiers would do their duty. This belief built a moral shield of mutual support to

replace the physical ones of the past. This mutual trust strengthened the heart. The soldier who could not count on the actions of others around him because they were strangers would display less discipline in his performance of duty. The discipline to not let fellow soldiers down is strongest when they are bound by "mutual acquaintanceship and trust."¹⁸

Discipline, as the measure of cohesion, is an important facet of Du Picq's work. Discipline places cohesion in a military context. There may be something that some would call cohesion without discipline, but it will seldom generate the combat power that leads to victory.

When a Prussian shell silenced the pen of Ardant du Picq, it opened a period of over seventy years where little was written about cohesion. The next person to pick up the pen was S. L. A. Marshall who studied and wrote about the behavior of soldiers in World War II.

Marshall believed that the feeling of physical support in battle did not depend on the other soldier acting appropriately but on the mere fact that he was there.¹⁹ Knowledge of his actual actions was not as important as the *belief* that he would do the right thing. Confidence in fellow soldiers increases as the bonds between soldiers grow stronger.

For Marshall, the combat power of cohesion would be realized only when it resulted in more and better fire. By increasing the bonds of mutual support he hoped to increase the volume of fire.

The number of works on cohesion has steadily increased since World War II. Their common trait is variance in the definition of cohesion.

2.2. The Definition Rut

Definitions of cohesion can be categorized according to the emphasis they place on the following: feelings, military mission, commitment to goals, bonds between individuals, trust, commitment to others, sense of belonging, or attitude.²⁰ The existing U.S. Army doctrinal publications on cohesion scatter their definitions

among several of these areas. DA PAM 350-2. Developing and Maintaining Unit Cohesion, defines cohesion as "the *feeling* of belonging to a team of soldiers who accept a mission as their mission."*(italics mine)*²¹ FM 22-9. Soldier Performance in Continuous Operations, calls *mutual trust* of soldiers cohesion.²² FM 22-100. Military Leadership, lines up in the commitment column by emphasizing that cohesion is the ". . . commitment of soldiers of all ranks to each other."²³

The best way to get out of this definition mess is to establish criteria for selecting a definition based on Ardent du Picq's admonition to "seek the end always, not the means!"²⁴ A good definition of cohesion would: (1) apply to military units across cultures and time, (2) define the end state of cohesion—not the process or components, (3) relate to combat power.

Definitions of cohesion that focus on feelings, commitment to goals, bonds between individuals, trust, commitment to others, sense of belonging, or attitudes, concentrate on the process and components of cohesion instead of the end state. These definitions do not meet the second criteria. Unfortunately, the doctrinal definitions listed above fall into this category.

William L. Hauser defined cohesion as, "*the ability of a military unit to hold together, to sustain mission effectiveness despite combat stress.*"²⁵ This definition meets the criteria. It applies across time and culture; it defines the end state, not the process or components, and it relates directly to combat power.

With cohesion defined, we can turn to its component parts. Understanding the structure of cohesion is the first step in understanding how to build it.

2.3. The Component Part

The components of cohesion are: horizontal bonding, vertical bonding, and organizational bonding. These components all operate within parameters set by societal bonding.²⁶

2.3.1. Horizontal Bonding.

Horizontal bonding is also called peer bonding. Bonds at this level are between soldiers of like status, i.e., enlisted to enlisted, NCO to NCO, and officer to officer.

Some horizontal bonding will occur automatically in any group. Soldiers with similar interests will form friendships. In other words, there will be those who just plain like each other. Additional horizontal bonding takes place as soldiers develop interdependence from performing mutually beneficial tasks. Bonds may also develop because soldiers have similar attitudes, values, and goals.²⁷ Some of these bonds may work toward the accomplishment of the unit's mission, in which case they become part of cohesion, or they may work at cross purposes to the mission and goals of the unit. Horizontal bonds that work against the military mission of the unit are not part of cohesion; they detract from mission effectiveness. An example of a dysfunctional horizontal bond would be a group of soldiers whose shared interest was illegal drugs.

A shared sense of mission, friendship, technical and tactical proficiency, lack of personnel turbulence, teamwork, trust, and respect, help positive horizontal bonding.²⁸

Horizontal bonds can be very strong. Lieutenant Colonel John Fowler quoted a Vietnam veteran as saying that buddy relations "could not be broken by anything except death."²⁹

We usually think of American buddy relationships in terms of two. This is a pattern that stabilized during the Korean War, stayed on through Vietnam, and continues today. Buddy groups can be larger than two soldiers. China and Vietnam used three soldier buddy groups.³⁰ During World War II the buddy group was often four to eight men, although the two man group was there, as evidenced by cartoonist Bill Mauldin's Willie and Joe.³¹

Horizontal bonding does not end with buddy groups. It works to unite like soldiers, i.e., enlisted to enlisted, NCO to NCO, and officer to officer. Within these groups there are additional levels of horizontal bonding. For example, lieutenants tend to form horizontal bonds with other junior officers; they probably do not form many horizontal bonds with the senior officers. They will bond to the senior officers through vertical bonding.

2.3.2. Vertical Bonding.

Vertical bonding is the relationship of superior to subordinate and subordinate to superior. Vertical bonding is what ties the groups formed by horizontal bonding together and begins the process of turning groups of soldiers into a military unit.

Leaders must work to form vertical bonds; they do not happen automatically. Bonds at the vertical level are based upon trust and respect. S. L. A. Marshall captured the essence of the trust and respect that should exist in vertical bonding when he wrote that relationships within the American army "should be based upon intimate understanding between officers and men rather than upon familiarity between them, on self-respect rather than on fear, and above all, on a close uniting comradeship."³²

An open organizational climate, concern of leaders for their soldiers, leader example, sharing of training, hardships, and danger by leaders, and trust and respect, all help the vertical bonding process.³³ Erwin Rommel said that it took a lot from a commander to win confidence — especially self-discipline. The payoff was that once a commander had the soldiers' confidence they would "follow him through hell and high water."³⁴

Vertical bonds are the essence of military leadership, and the source of sorrow as well. These are bonds of flesh and blood, not an abstract idea. A commander forges strong bonds with his officers and then must look at those same officers, whom he loves as brothers, and send them to their deaths. He must send the youth of a nation, whom he looks on as his sons, into battle.

Soldiers and their leaders go forward because their ties to each other and the trust up and down the ladder of the chain of command say they must. Not to go forward, to deny the bonds, would be worse than the enemy fire.³⁵

British and Argentine officers, interviewed by Nora Stewart after the Falklands War, used one word more than any other to describe the relationship a leader must have for his soldiers. The word was "love."³⁶ The leader who shows genuine concern earns the trust of subordinates, and forges the bonds that bind soldiers together into a military unit.

2.3.3. Organizational Bonding.

Organizational bonding is the bonding of the soldier to his unit and the military institution. Patriotism, tradition, concepts of valor, elite status, and a strong sense of military purpose help strengthen the formation of organizational bonds.³⁷

Heritage is an important part of organizational bonding. The sinking of the *Atlantic Conveyor* during the 1982 Falklands War destroyed the Chinook helicopters that the 45th Commando of the Royal Marines planned to use for transportation to Stanley. After considering his options, Lieutenant Colonel Whitehead, the 45th commander, turned to his men and said: "We marched from Normandy to Berlin. We can bloody well march eighty miles to Stanley."³⁸ The commandos knew the reputation and traditions of the Royal Marines were at stake. They marched with pride. Anyone who has seen film footage of the march will remember the heavy packs the men carried and the Union Jack proudly flying on the pack of the last man in the column.

The size of the unit where organizational bonding takes place varies. The regiment has traditionally been the focus of organizational bonding in the British Army. The American focus has tended to be at company or battalion.³⁹

The organization gives the soldier a place to invest his patriotism; it provides the purpose for going to battle. Once in battle men fight because of the horizontal and vertical bonds that

bind them together. Still, it is the organizational bonds that give the soldier a purpose for his sacrifices.

The three components of cohesion that we have examined so far, horizontal, vertical, and organization bonding, work within the larger framework of societal bonding. The potential influence of societal bonding on cohesion is formidable.

2.3.4. Societal Bonding.

Society's attitudes toward its military force directly influence cohesion. The strongest horizontal, vertical, and organizational bonds will be worthless if defense budgets have not given the force the means to fight. N. P. Mikhnevich, Chief of the Russian General Staff from 1911-1917, pointed out that when an army's weapons are inferior to the enemy firepower and morale suffer.⁴⁰ Soldiers may overcome some problems of inferior equipment by adapting different tactics to even the odds, (the Sherman tank comes to mind), but there are limits to this approach. Polish cavalry charging Nazi tanks displayed magnificent cohesion, but what good was it?

The military depends on society to provide means for the following: adequate medical care, logistical support, and training of officers and men. But armed forces do not depend on their societies solely for materiel support; they depend on them for moral support as well.

The wrong political strategy, or lack of political will, may lead to the wrong military strategy and doom the efforts of even the most cohesive military force.⁴¹ Cohesion suffers when the political strategy is wrong. Among American combat units in Vietnam, cohesion matched that of any prior conflict until 1968 when the political strategy began to switch to disengagement. Cohesion declined only after the political strategy took away a clear purpose for being in Vietnam.⁴²

Military forces depend on their societies for the physical means to fight, and for manpower. Society grants a social status to the soldier: honored, despised, or ignored. A society that

bestows a despised or ignored status on the soldier will have difficulty attracting quality recruits. This in turn effects cohesion because quality relates to trainability and combat effectiveness. A well trained soldier fights better. A unit that fights well sustains mission effectiveness longer than one that does not.

The explosion of communications technology has made societal bonding a greater factor in cohesion than ever before. The ability of citizens to participate vicariously in war means that popular support for a war can wane long before a military unit has suffered any breakdown of horizontal, vertical, or organizational bonds.

The first link to break in cohesion could be the societal bond. Casualties tear at the bonds of a military unit by a combination of physical and psychological destruction. Eventually the destruction reaches a level where even the most cohesive unit loses its ability to sustain mission effectiveness. Today, society's casualty threshold, the point at which society says "no more," may be lower than the threshold of the unit in battle. The fighting force may still have the cohesion to go on, yet find that society will not bear the same casualties the force can. The withdrawal of societal support will eventually cause a unit to lose its ability to sustain mission effectiveness as surely as if it had lost cohesion on the battlefield.

The military leader effects societal bonding by projecting competence, confidence, and above all, by winning. He must be constantly aware of the potential of societal bonding to strengthen, or weaken, the cohesion of military units.

We have completed the hut housing the components of cohesion in our base camp. It is time to build a hut that will contain information on building cohesion.

2.4. The Hut on Building Cohesion.

2.4.1. Shared Experiences.

The best way to build the bonds that of cohesion is through shared experiences. Vigorous training, sports, and social life, provide opportunities for soldiers and leaders to get to know and trust each other.⁴³ There are no shortcuts to building cohesion. It takes time to build bonds based on trust and confidence. This does not refer only to the passage of time, but to the quantity and quality of personal interaction that takes place within that time. Leaders can accelerate cohesion building time by increasing the opportunities for shared experiences and by guaranteeing that the unit shares experiences, and not just situations.

A shared situation occurs when soldiers participate in the same event but are unaware of what the other members of the unit are experiencing. They can become as strangers on a bus who share the same ride and little else. This is a logical extension of the dispersed battlefield and the isolation of the individual soldier.

A mechanized infantry company on a training exercise consists of crews contained in motorized steel boxes. The boxes effectively isolate them from most of the other members of the company. Armor crews see only a few other tanks, aircrews see only a few other helicopters. Each crew goes through the training without knowing what other unit members are experiencing. If the training ends without soldiers knowing what the other soldiers of the unit experienced then the training event was only a shared situation. It may have reinforced some tactical skills but did little to build cohesion.

2.4.2. The Group AAR.

The way to change a shared situation into a shared experience is with the group After Action Review (AAR). There are many ways

to conduct AARs, ranging from the computerized ones done at the National Training Center (NTC), to simple "chalk" talks. Regardless of the technique, all soldiers of the unit must be involved in the process for it to build cohesion. The genesis of group AARs was the "unit interview after battle" technique described by Marshall in his book Island Victory.

Marshall found that the way to "reconstruct the experience of any one company or similar unit in battle was to assemble the whole unit and let every man be heard by all the others, his comrades in the fight."⁴⁴ Until soldiers share their experiences they do not know how their actions fit into the whole.

Marshall used his "unit interview after battle" technique as a historian to reconstruct battles. He found that the most effective interviews were the ones where the unit leadership led the discussion. They picked a starting point in time and reconstructed the events chronologically by allowing individual soldiers to relate their actions. A ground rule of the unit interview was that soldiers had to speak so that all could hear. Marshall found that unit interviews reconstructed the battle for historians, and improved morale. As soldiers relived the battle they became aware of the significance of their own and others' contributions.⁴⁵

The interviews successfully reconstructed battles because they followed the idea that every soldier had something worthwhile to contribute. Each soldier sees an event, be it battle, training, or maintenance, from a different vantage point. An open sharing of experiences lets each soldier see what happened through multiple sets of eyes. This sharing is what changes a shared situation into a shared experience. Effective group AARs accelerate cohesion time. They speed the strengthening of the horizontal, vertical, and organizational bonds that lead to the cohesive end state a unit needs.

While building the foundation of the base camp I quoted Marshall as saying that in battle knowledge of another soldier's actions was not as important as the *belief* that he would do his duty. A soldier's belief that other soldiers will do their duty increases with each shared experience. Through the group AAR the soldier finds that the companions he could not see were doing the same things that he was. Leaders discover actions of subordinates they were not aware of before. Unit members know only a fraction of the actions of the whole when they do not share their actions with each other. The group AAR converts shared situations into shared experiences, and builds tactical skills and cohesion. Marshall found that it was an effective way to avoid repeating mistakes in war while reinforcing the things that went right.

A short example will show the power of the group AAR. The example starts with an "average" soldier present for duty 217 days a year. This soldier works an average of ten hours per day and during that time associates closely with about ten other soldiers.⁴⁶ Multiplying days, hours, and associates, yields a product of 21,700 *interactive man hours*, or hours available for bonding, per year.

Adding a National Training Center (NTC) rotation to this "average" soldier's year will increase the hours available for bonding to twenty hours per day during the fourteen days of "battle." The total increase (including the worked weekends) equals 180 hours. Multiplying the 180 hours by the ten associates gives an increase in interactive man hours of 1800. There are now 23,500 annual interactive man hours available for this soldier.

Without a group AAR the soldier shares his experience with only the soldiers in his immediate section or squad. He knows little, if anything, of the actions of the rest of the platoon and company. A company level AAR increases the number of soldiers sharing the experience with him ten fold. The 180 hours are multiplied by 100 instead of 10. The interactive man hours from the NTC rotation increase to 18,000 and the annual interactive man hours increase to 39,700! (see figure 1)

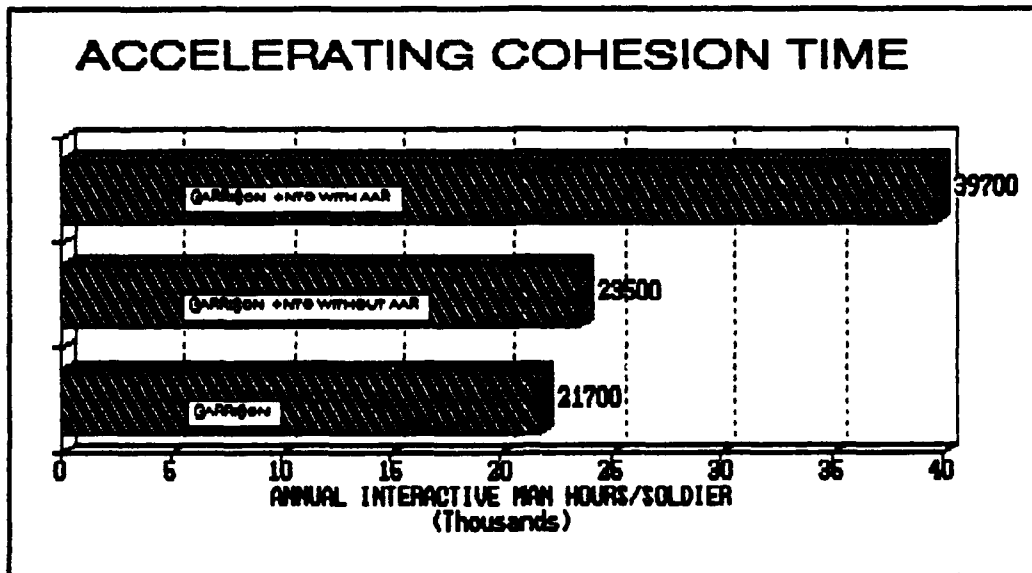


Figure 1

2.4.3. Vigorous Training.

Leaders must develop training plans that accelerate cohesion time. They do this by following Clausewitz's criteria for building military spirit. His first criteria was a string of victories. The second was exertion to the limit of the army's strength.⁴⁷ A true string of victories must wait for war, but leaders can define success in terms that allow their soldiers to experience the feelings of victory during training. Exertion to the limit of a unit's strength should be the goal of unit training plans designed to reinforce cohesion.

Vigorous training that pushes troops to the limit shows them their capability. Hardships and challenges create situations that provide an opportunity for a shared experience that will accelerate cohesion time. When soldiers relate how they overcame challenges during the AAR their confidence and trust in each other increases. Horizontal, vertical, and organizational bonds become stronger. A unit increases its capability to sustain mission effectiveness under conditions of combat stress with each successful shared experience.

Training is only one part of a kaleidoscopic image of developing cohesion. Between major field training events there is garrison time. For many soldiers this includes going home to their families after the duty day.

2.4.4. Family Factors in Building and Maintaining Cohesion.

A married army poses special challenges to the leader trying to build a cohesive unit because many soldiers have a source of emotional sustainment outside the unit. A married army effects not only the married soldiers but the bachelor soldiers as well. Their leaders, and many of their peers, probably are married. The time available for building cohesion goes down as soldiers shift into their separate worlds of families, the civilian community, or the barracks.

John Baynes book, Morale, a study of the 2nd Scottish Rifles during the battle of Neuve Chapelle, states that "the bachelor existence [of the 2nd Scottish Rifles] was a major contributory cause of the strong comradeship among soldiers."⁴⁸ Baynes went on to say that "when a man has a family he naturally thinks more of them than of other friends, and tends to withdraw from all but the strongest of his links with other men."⁴⁹

Units like the 2nd Scottish Rifles drew the strength of their cohesive bonds from their bachelor existence. The unit became the repository of the emotional investment a soldier would otherwise place in his family.

A bachelor existence may be the easiest environment for building cohesion, but the U.S. Army is a married one. For married armies the "enlistment of loyalty, trust, and commitment of family members is important for cohesion."⁵⁰ The success or failure of the vertical bonding process may very well rest on how the soldier perceives the concern his leaders have for him and his family.

Before war caring for families helps to strengthen vertical bonds. When a soldier deploys, the impact of families on cohesion changes.

Family Status While Soldier is Deployed

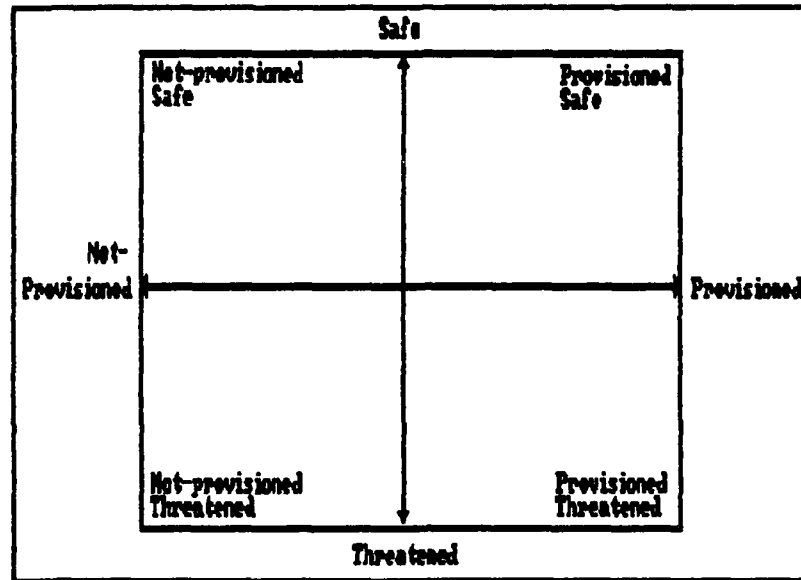


Figure 2

The family of a deployed soldier falls into one of the four quadrants shown in Figure 2. The further a family's status moves toward the upper right quadrant the more a soldier's mind is free to concentrate on military duties. The threat to cohesion increases as the status of a soldier's family moves toward the lower left. Sometimes the threat to cohesion posed by family status may even be desertion. During the last days of World War II German soldiers accepted desertion by fellow soldiers with family obligations.⁵¹

Even when a fight is for survival, as in the 1973 Arab Israeli War, family stresses can work against cohesion. An Israeli psychologist found that over 80% of combat reaction cases had problems with prior or ongoing civil stresses.⁵² When soldiers leave a unit physically, as in the German case, or psychologically, as in the Israeli, because of family stresses or concerns, the unit loses some of its ability to sustain mission effectiveness.

Leaders must do everything they can to move the status of a soldier's family toward the upper right corner. Good anti-terrorist and evacuation plans reduce the threat to a family. Actions such as direct deposit programs, power of attorney, wills, and family support groups, help move the family to the right along the provisioned axis.

Family factors are just one reason why leaders must accelerate cohesion time by making the maximum use of every opportunity to create a shared experience. The leader who relies on the passage of chronological time to build cohesion will be disappointed. Some horizontal bonds will form between soldiers, but the garrison environment with its off post housing, proximity of families, and community attractions, makes the formation of vertical and organizational bonds, through the simple passage of time, unlikely.⁵³

The ability to sustain mission effectiveness under combat stress includes not only moral, but physical dimensions. Anything that causes the unit to "melt" away damages cohesion. The enemy will try to do this by physical destruction; the job of the leader is make sure that this process is not accelerated from within.

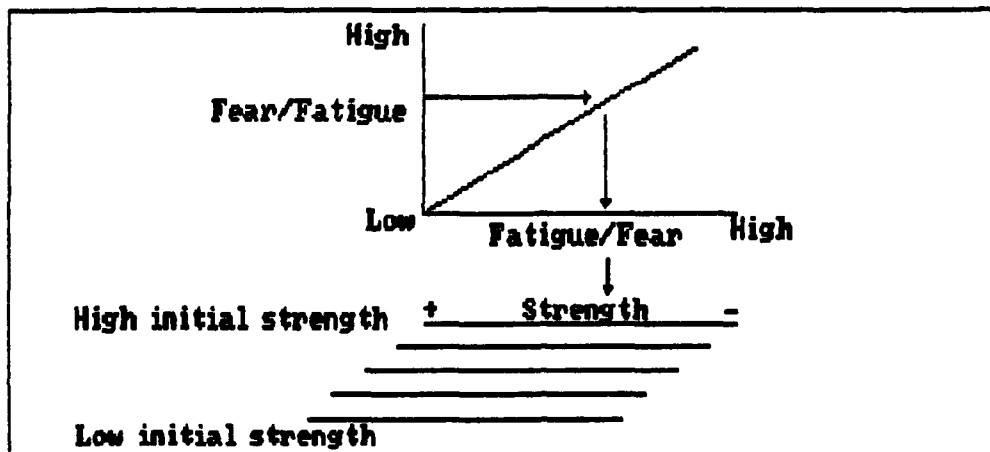
2.4.5. Physical Fitness and Cohesion.

Thus far we have covered the moral aspects of cohesion. The physical is just as important. Total physical destruction by the enemy destroys all cohesion. A destroyed unit cannot sustain mission effectiveness. The only remedy for that is to fight well, but as Du Picq saw, there are no guarantees. The question is how to maintain cohesion for the longest possible time.

Building cohesion includes preparing soldiers physically. A physically fit a soldier is more resistant to Disease and Non-Battle Injuries (DNBI). He can withstand the loss of blood better than the soldier who is not fit. Marshall drew a strong correlation between physical fitness and the ability to cope with the fear of the battlefield.⁵⁴

Fear equals fatigue. Marshall reported that during the D-Day landings on Omaha Beach some men were so weak with fear that the stronger ones had to take a double risk by helping the weaker ones move their equipment across the beach.⁵⁵ Figure 3 shows the corollary he saw between fear, fatigue, and strength.

The Relationship Between Fear, Fatigue, and Strength



Enter the chart along the vertical axis. Read over and down to find the corresponding value. Continue down to the horizontal line matching initial strength of the soldier. Read the relative level of strength remaining after fear and fatigue.

Figure 3

The lesson from Marshall is that the greater the starting reserves of physical strength, the greater the strength remaining after the effects of fear and fatigue. Vince Lombardi's "fatigue makes cowards of us all,"⁵⁶ echoes Marshall's thoughts.

Physical training builds the moral forces involved in cohesion as it improves the physical strength. Marshall said that these were unconscious gains that built "will power, determination, mental poise, and muscle control."⁵⁷

A unit can have strong bonds, be physically fit, and still lose cohesion because it cannot fight well. Tactical and technical proficiency play an important role in cohesion.

2.4.6. Tactical and Technical Proficiency.

A unit cannot sustain mission effectiveness under combat stress if it does not know its craft. Trust and confidence spring from a knowledge that leaders and fellow soldiers can do their duty when called upon. Training with good AARs, that reinforce lessons learned, will build this proficiency. Another technique that reinforces training is requiring subordinates to write down lessons learned after every training event.⁵⁸ This forces soldiers to analyze their experiences, and draw more out of a given time period. Constant improvement in tactical and technical

skills through vigorous training, reinforced with AARs, will give a unit the skills it needs to maintain the ability to sustain mission effectiveness.

The base camp is nearing completion. Looking back we see a foundation of time tested thought on cohesion. One hut contains the definition of cohesion. Another displays the components of cohesion and the nature of the bonds that go into making a cohesive unit. We just finished a large building that houses information on developing cohesion. The last task on our list for the base camp is to develop a working model of cohesion.

2.5. The LegoSM Model of Cohesion.

The Lego Model of Cohesion uses the popular plastic building blocks that almost everyone has had the opportunity of playing with or stepping on. The goal in presenting this model is to give leaders an easily remembered tool for visualizing the process of cohesion. With imagination the reader can mentally expand the model beyond the drawings presented. The first application of this model will be during the exploration of cohesion in the Land of CSS.

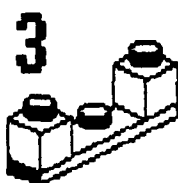
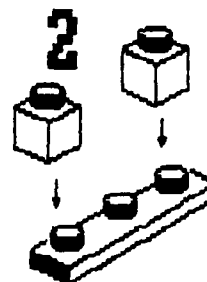


The first frame of the model is a single block, used to represent individual soldiers.

Like individuals, most of the blocks are ready for assembly, and fairly easy to work with. However, there are some blocks that are broken or warped. These blocks may have come from the manufacturer with defects, or they may have been damaged after receipt. Some of these warped or broken blocks can be used if the Lego builder (leader) applies enough pressure and is very patient. Bad blocks that cannot be assembled, even with pressure and patience, should be removed from the set. When bad blocks go back into the bin they have a way of resurfacing to hinder construction of the model, or a cohesive unit.

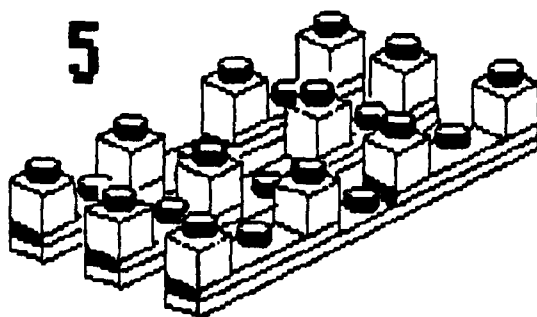
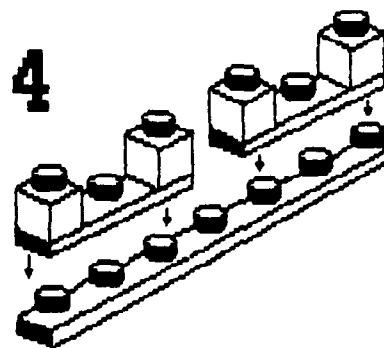
Individual blocks scatter easily, or get lost. They can be sucked up by a vicious vacuum cleaner in the same way lone soldiers can be ingested by the maelstrom of war.

Step 2 shows the start of horizontal bonding. Soldiers begin horizontal bonding when they form friendships and mutually beneficial associations. The blocks go together very easily at this stage. Single blocks do not need to be perfectly aligned. The blocks require only slight pressure to fasten together.



The first level of horizontal bonding is complete when buddy groups have formed. The model uses a two soldier group for simplicity, but larger groups are possible. The joined Lego blocks do not get lost as easily as single blocks.

The fourth step of the model depicts the continuation of the horizontal bonding process. Buddy groups are linked into larger groups of like soldiers, i.e., enlisted, NCO, or officer. The blocks are hard to lose when linked together and are impervious to the vacuum. Unfortunately, the group is still easily knocked about.

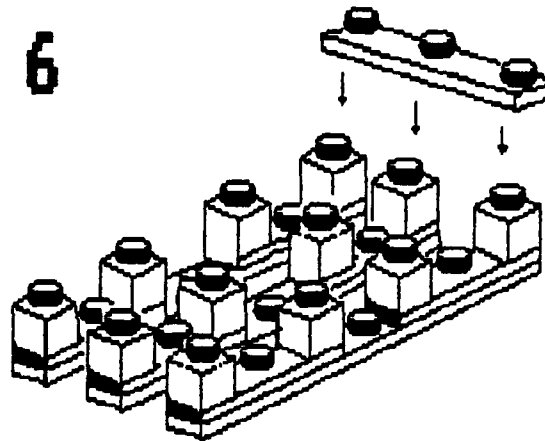


The horizontal bonding process is complete (in reality it never is because people are dynamic) when soldiers have bonded into groups of like soldiers. The process has been almost automatic up to this point;

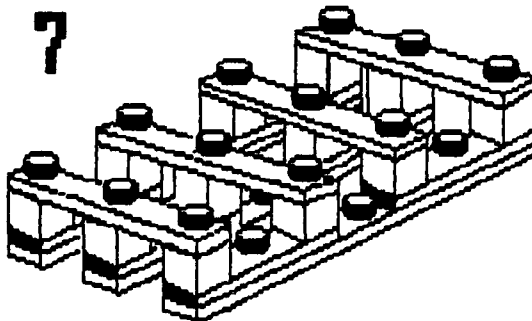
dependent mostly on adequate time. Assembly has been easy, no juggling of pieces or multiple alignments to worry about; that will soon change.

Individual soldiers probably feel strong bonds by this point of the model, but they are still a long way from achieving cohesion. Since there is nothing to tie the groups together they cannot function as a unified whole. Each completed strip must be handled separately.

The beginning of the vertical bonding process of superior to subordinate, and subordinate to superior, is shown on the right. These bonds require patience and skill. The horizontal strips must be juggled and aligned. Damaged or warped



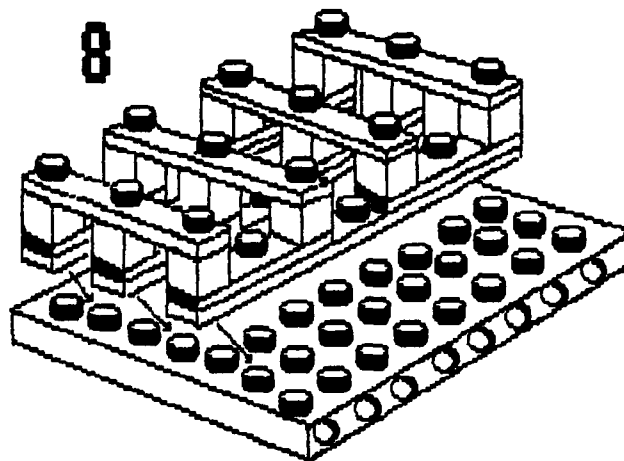
blocks that may have gone together during the horizontal bonding assembly process may become problems now. When the builder cannot attach the vertical bond strips, even with pressure and patience, because of a warped or broken block, he must be willing to remove the bad block from the model.



The vertical bonds have linked the horizontally bonded groups together. The structure appears to be very strong. However, if we try to move it the vertical bonds might not stand the strain.

The model accurately reflects the paradox of cohesion; the very bonds that hold it together become a source of inertia. Soldiers want to preserve the group; something that combat has a bad habit of interfering with. The unit the model depicts must overcome this inertia before it can sustain mission effectiveness.

Organizational bonds are the first step in overcoming the inertia of the horizontal and vertical bonds. Figure eight depicts the process where soldiers, already linked by horizontal and vertical bonds, bond to an organization. This is the first time that the bonds have not been purely interpersonal; organizational bonds have an abstract component. This is not an easy step in the construction of the model. The builder must precisely align the pieces and then apply considerable pressure to join them to the base.



Selecting the right base for organizational bonding is the most important decision leaders will make about the cohesion of their units. The base should match how the unit organizes for combat. If the unit will normally fight and employ as a battalion, such as light infantry, then a battalion base is appropriate. A unit that will task organize at the battalion level using company teams should focus its organizational cohesion efforts at the company level. As we continue to build the model the implications of selecting the correct size base will become clearer.

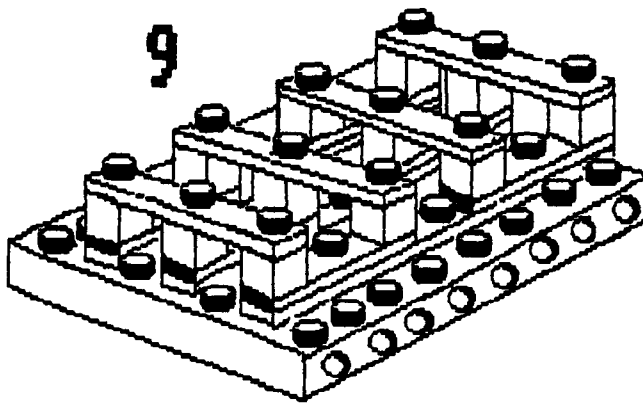
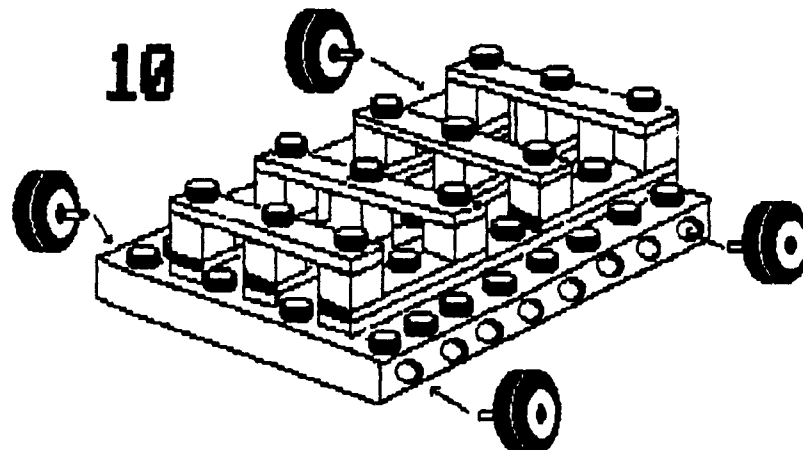


Figure nine is a unit bonded together with horizontal, vertical, and organizational bonds. By picking the unit up by the base it can be moved without stressing the vertical bonds.

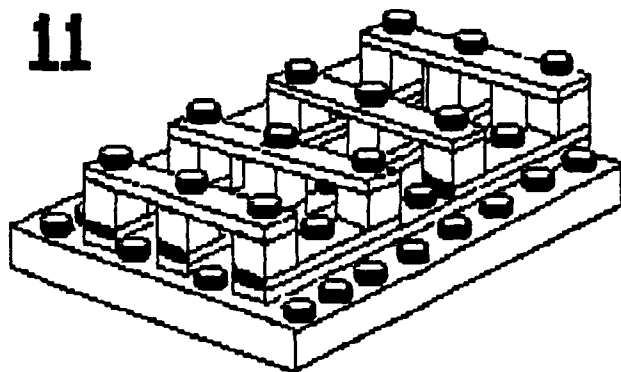
If the organizational base chosen by the leader in the previous step was too large the horizontal and vertical unit *may* need to be separated from the base before employment. It is hard to pull the horizontal and vertical structure from the base in one piece; some pieces will stay behind, others will fall off. Choosing the right size base allows the unit to always be handled by the base which protects the horizontal and vertical structure.

At this stage of the model the structure is strong. Soldiers have strong feelings of cohesion and feel part of a group. The model can be safely moved but is still not dynamic; it just sits there unless it is picked up.

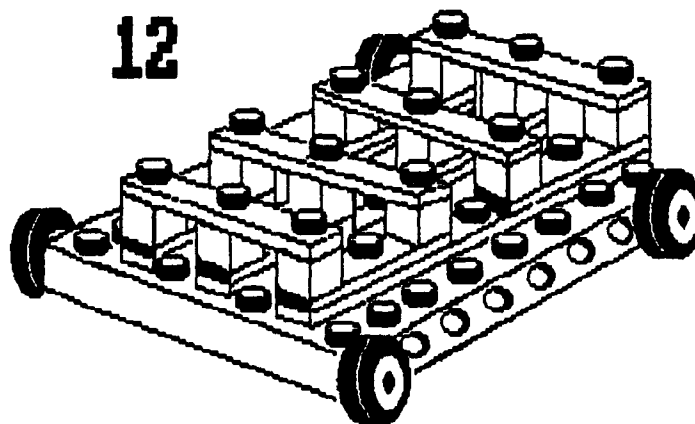


It is time to change the model from static to dynamic by assigning it a combat mission. Stage ten depicts a unit that is the right size and type for a combat mission. Attaching the wheels empowers the unit by giving it a purpose and mission directly related to combat. A vehicle with a single base indicates that the

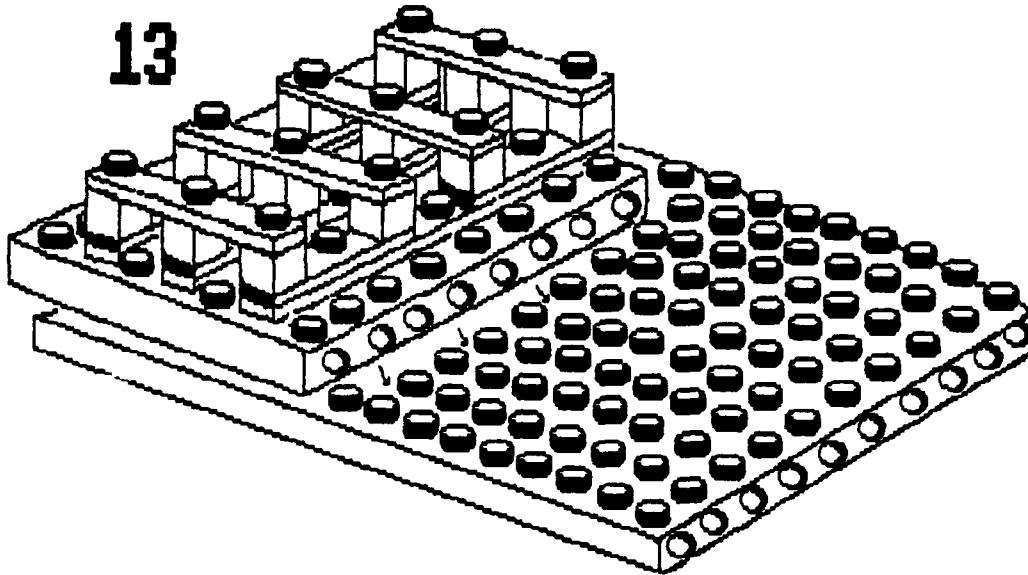
first level of organizational bonding matches the desired level of employment.



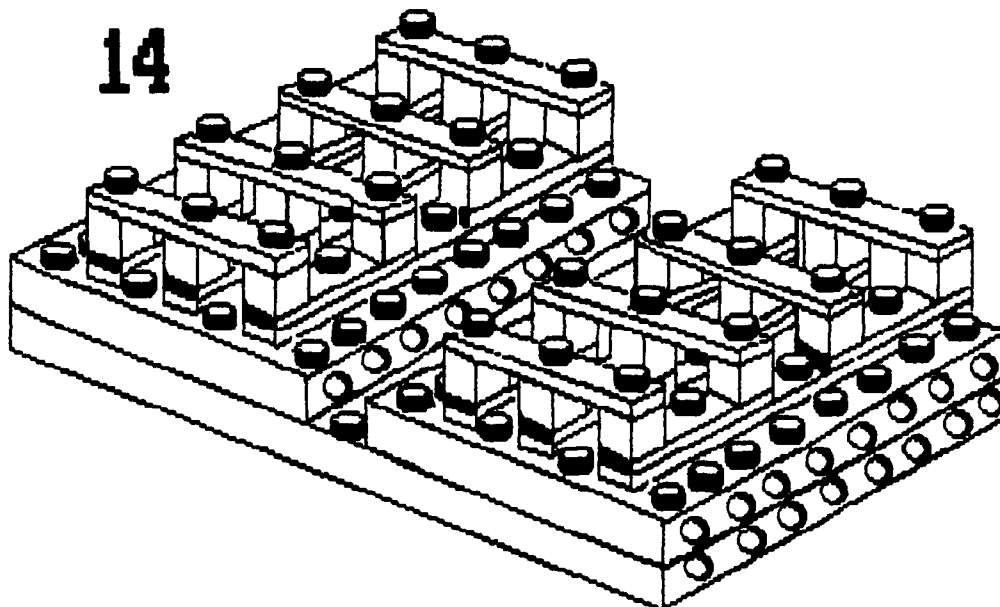
Number 11 is what a unit that does not have a direct combat mission looks like when horizontal, vertical, and organizational bonding are done. It has strong bonds, and can be moved by its organizational base. However, the base is different; there are no holes for attaching wheels. This type of unit cannot be combat empowered. It must form a second level of organizational bonding with a unit that can be combat empowered, or it will never become dynamic. In model terms, it must join to a base that has holes.



This is a cohesive unit. It is strong, combat empowered, and can sustain mission effectiveness under conditions of combat stress. It cannot be vacuumed up, and the individual pieces are linked together so they do not scatter. Violent action may damage individual pieces but it is difficult to destroy the entire structure.

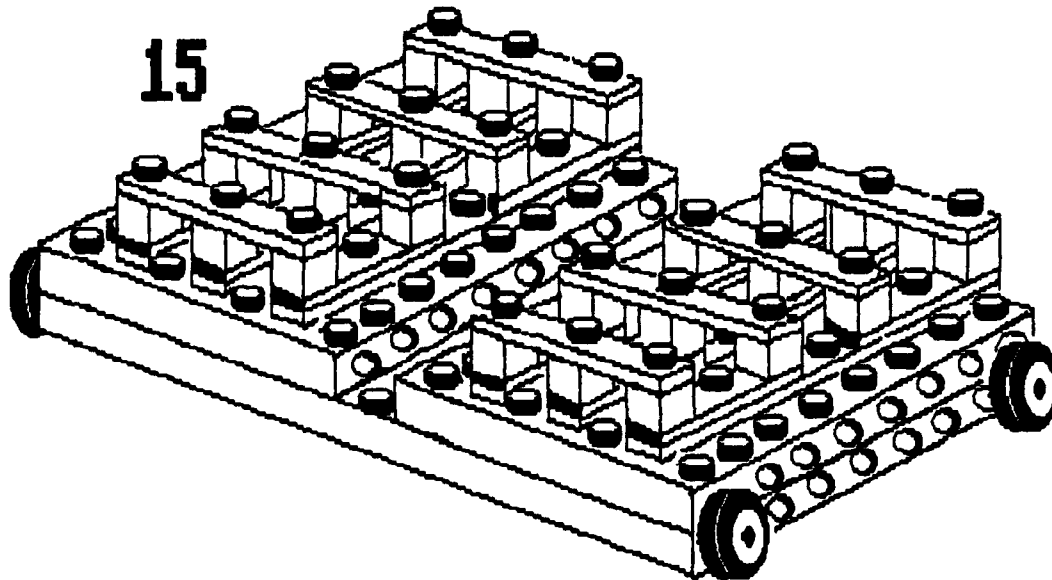


When the first level of organizational bonding is too small for the combat mission, a second level of organizational bonding is added. The entire structure formed by horizontal, vertical, and organizational bonding attaches to a larger organizational base. Units without holes for wheels must add layers of organizational bonding until the bottom layer can have wheels.

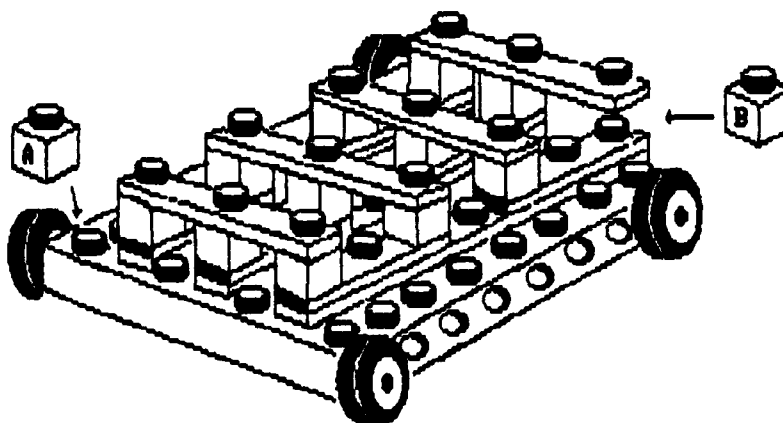


Frame 14 of the model depicts two combat units that have completed a second level of organizational bonding. Two units are shown for simplicity. I will ask the reader to mentally expand

the drawing and number of units. If this were a task force, there would be several company teams joined to the task force base. Since the teams retain the cohesion of their own bases they can be "plugged" in and then taken out of the structure without straining the horizontal and vertical bonds.



The model is complete. The final frame depicts a combat empowered unit with two layers of organizational bonding. We can now use the model to examine some challenges leaders face in developing and maintaining cohesion.



Block A represents those attached, but lost soldiers. They arrive at the unit as individuals or small teams. They need to be part of the organization, but often all they get is a place along

the edge of the organizational base. They can be knocked from this outer edge unless leaders do something about their plight. Leaders need to extend vertical bonds out to these soldiers to anchor them. The best situation is for soldiers who will be routinely attached to train and associate with the unit. They then become part of the structure, or at least have a reserved place where the vertical bonds can flex to let them in.

Block B represents a replacement for a casualty. There is no way to just "slide" the block into place. The vertical bonds must flex before the block can fit in. General Bradley lamented the fact that many single replacements, fresh from the replacement depots, would arrive at night, and be dead or wounded before they even knew their sergeants. The casualties among these soldiers were much higher than among soldiers who knew their leaders.**

During the model development I said that one of the most important decisions leaders make would be the choice of level for organizational bonding. The model accurately depicts what happens if the horizontal and vertical structure has to be removed from the organizational base. The logical question then becomes: why not use the smallest base possible and then use multiple layers of organizational bonding to reach the level of combat empowerment?

Organizational bonds have a level of abstraction not found in the horizontal and vertical bonds. For each layer of organizational bonding the abstraction increases. Consider what the model would look like as the number of layers increased. Pretty soon it would be a giant layer cake instead of a fighting machine. Organization bonds become weaker, and more abstract, as the distance between horizontal and vertical structure and wheels increases.

The base camp is complete. Looking back on our work we see a foundation and several huts containing information on what cohesion is, its components, and how to build it. A complete model of cohesion rests on the workbench in the camp's workshop. We are ready to launch the expedition into the Land of CSS.

3. EXPLORING THE LAND OF CSS.

3.1. The Inhabitants

Our exploration of the Land of CSS will concentrate on the inhabitants. We will find out who they are, how they are trained, the type of "communities" they live in, how they make a "living," and what type of economic system they use.

3.1.1. Who They Are.

A "citizen" of the Land of CSS is a soldier who has a Military Occupational Specialty (MOS) in one of the five functional systems of transportation, maintenance, supply, personnel, or health services. Their jobs cover the technological spectrum from computer repairers to stevedore and truck driver. Working conditions vary from air-conditioned shelters to the hardships and horrors of battle.

The CSS citizen starts his naturalization process in the same way as any soldier: he attends basic training. During basic training soldiers receive training in teams. Developing a sense of cooperation, teamwork, and unit pride is an important part of the training. When the CSS soldier moves on to Advanced Individual Training (AIT) he is no longer in team-centered training. Instead, he trains as a collection of individuals in competition with each other to learn individual skills. The sense of belonging that he found in basic training begins to evaporate.⁶¹ Whether the CSS soldier ever recaptures the spirit of belonging depends on the nature of the "community" he settles in after training.

3.1.2. Their Communities.

CSS soldiers "live" in several types of "communities." Some live in the land of combat where they become part of a combat unit. In the cohesion model they would be an integral part of the

horizontal and vertical structure of the combat unit.

Other CSS soldiers settle in support communities that are along the border with the Land of Combat. Forward Support Battalions (FSB)^{*2} qualify as this type of community. These soldiers form horizontal, vertical, and organizational bonds within their community. The model depicts their cohesive structure as a horizontal and vertical structure bonded to a base with no holes. Identifying the combat base to join their organizational base to is easy because they are close to combat units. However, just identifying the unit is not enough; the support unit must make the organizational bond with the combat unit or the support unit structure will be static, as the model depicts.

Some CSS communities are not on the border with the land of combat, but are close enough to establish relations. These are communities like the Main Support Battalion (MSB).^{*3} The internal cohesive structure for this community would be very similar to the FSB, although the base selected might be company size because of the number of units in the MSB and their divergent missions.

Since the MSB community is further from the border its members will not know as many people from a combat community. In spite of this, they must still join to a base that has wheels. Because there are fewer interpersonal ties the organizational bond to the combat unit is more abstract. The bond may be abstract, but the MSB community will be on a base that gives it wheels and makes it dynamic.

The last type of CSS community is deep in the heart of CSS country. It is that part of the country that citizens of the Land of Combat, and some in the border communities of the Land of CSS, call the region of PUNTS (Persons of Utterly No Tactical Significance).^{*4}

The greatest cohesion challenge leaders of these units face is creating the organizational bond between the CSS unit and the combat force. No matter how difficult this may be, failure to create a bond leaves a support unit that is a static block without "wheels."

3.1.3. The National Product.

Now that we know who the citizens of the Land of CSS are, and how they live, we will turn to their national product: support. There would be no Land of CSS without this product. It is the only reason this particular country exists.

CSS soldiers have a dual role in cohesion. They must maintain their internal cohesion while providing the logistical support that allows the combat units to sustain mission effectiveness. Logistical support is critical; without it even the most cohesive combat unit will reach a point where the limits of human endurance are passed.

After General Paulus, German commander during the Battle of Stalingrad, cut rations to the troops one of his aides wrote in a letter to a friend that the time would come where each man would no longer care about anything, and would either "freeze to death or be captured."⁶⁵ This represents the extreme of logistical shortfall, but all troops will eventually succumb to hunger, thirst, or lack of sleep. Cohesive units just last longer than units with weak cohesion.⁶⁶

A support unit makes its living by supporting the combat force. The 7th Armored Division Trains fulfilled their reason for being when they pushed the convoy through on December 22, 1944. Their battle for survival would have mattered little if they had stopped supporting the division. The model would depict them as a support unit bonded to a combat base and part of a "wheeled" cohesive vehicle bringing combat power on the enemy's head. Any support unit that is not part of a structure like the one described above is not making an honest living.

3.2. The Economic System.

When people say "making a living," money comes to mind. But the money involved with cohesion in this Land of CSS, is not silver or gold; it is emotional credits.

Emotional currency exchange is complicated. Combat soldiers receive emotional payment from victory. Sun Tzu said that: "Victory is the main object in war. If this is long delayed weapons are blunted and morale depressed."⁶⁷ Even in training the combat soldier gets a certain measure of "victory" payment, i.e., we took the hill from the Opposing Force (OPFOR), we got further than any other unit, etc. This creates the potential for increased cohesion because the relationship between success and cohesion is circular.⁶⁸ Cohesion increases the chance for success which in turn strengthens the bonds that make up cohesion, which leads to even greater success. The combat soldier receives victory currency; what currency should CSS soldiers use?

CSS soldiers are not paid in "hard emotional" currency. Their share of the victory currency goes to the combat unit they join with; to the wheeled base. Having your pay routed through another person is difficult for some support soldiers to accept.

When a CSS unit has difficulty accepting this method of payment it may try to establish an emotional currency of its own. Establishing an independent emotional currency is a sure way of preventing or destroying organizational bonds between support and combat units.

This independent currency takes a different form than victory currency. Internal measures of success become ends, instead of means to improve support. Having a fully stocked warehouse becomes more important than the combat soldier having supplies. Involved documentation takes precedence over timely support. This is not to suggest that good stockage levels, proper accountability, and the other technical aspects of logistics are not important. I only wish to point out that when they become ends in themselves, and become the "emotional currency" of the CSS soldier, that the combat units will be the ones who suffer. The support unit paying its soldiers in internal specie is the static block, without holes, that gets in the way and does not contribute fully to combat power.

Internal currency is worthless outside of the issuing unit. When the CSS soldier tries to exchange internal currency for victory currency, he will find that the exchange rate is zero. Support units that use the system of letting their payment go to the combat unit will find that the combat unit will pay them in "victory" currency. Three examples will illustrate how this currency principle works.

The suffering of the German soldiers during the Battle of Stalingrad is well known. In the midst of this suffering the German Quartermasters kept warehouses stocked to the ceilings with uniforms, overcoats, felt boots, and meat rations. They maintained full stockage levels instead of issuing the supplies to the suffering troops.⁶⁹ They were collecting emotional payment by meeting internal standards of success. Imagine what exchange value their internal currency had with the suffering soldiers.

The second example is from the Falklands War and is remarkably similar to the first example. Argentine soldiers starved in the hills while warehouses and dumps were full.⁷⁰

The difference between Stalingrad and the Falklands is that the German Quartermasters deliberately accepted emotional payment in internal currency while the Argentine logisticians were too incompetent to deliver the supplies. The Argentines did not accept internal currency, but they also did nothing to credit the victory account of the combat units. Both cases represent a failure to form a bond between supporting and supported, resulting in the subsequent inability to collect on the only currency of value — victory currency.

The last example takes us back to the 7th Armored Division trains. They build up their credits in the combat unit accounts. Here is an example of the conversion of credits to "victory" currency by the combat units.

The magnificent effort of all service personnel was recognized and appreciated by all troops of the line. In many cases these service troops were called upon to repel enemy attacks. In one action on the 21st of December, near Samree, the Combat Command assistant S-4, Captain Robert H. Barth, was killed while attempting to maintain the constant flow of supplies to the front.⁷¹

The only way to benefit from the circular success-cohesion relationship is to gain victory credits. Support units gain victory credits by bonding to a combat unit. Until the support leader can honestly see his unit as a horizontally, vertically, and organizationally bonded structure, attached to a combat base with wheels, the power of cohesion as a combat multiplier is lost.

3.3. Bonding the Supporting Unit to the Supported Unit.

Since forming an organizational bond between a support unit and the supported combat unit is so important, we should examine how to form those bonds. Before starting we need to use the model to visualize the full scope of this bonding for some CSS units.

The model depicts CSS unit bases as having no holes; they are static until they bond with a base that has wheels. For a unit like a FSB, or even a MSB, this bonding is a fairly direct proposition. At higher echelons of support the support unit may be supporting another support unit. The model would depict this unit as bonding to a larger non-holed base that would include both the supporting unit and the supported support unit. The resulting structure would then bond with a base that had wheels to become dynamic.

Leaders forge organizational bonds. The support unit leader selects both the size of the unit base for the first level of organizational bonding and the combat unit base for the second level of organizational bonding. Choosing the correct bases is an important leadership decision. We know from the model what happens if the base is either too small or too large.

Once the support unit leader has selected the combat base, he should try to reduce the abstraction of the organizational bond he is asking his soldiers to make. The best way to do this is through multi-unit training to create shared experiences between soldiers of the supporting and supported units.

Allowing mechanics to participate in gunnery with their supported unit increases the support soldier's understanding of the challenges combat soldiers face, especially if equipment

malfunctions. Letting supported unit soldiers work in the support unit would increase their understanding of logistic efforts. This type of shared training increases the respect and confidence supporting and supported have in each other. It adds a personal dimension to the organizational bond between the "no hole" support base and the "wheeled" combat base.

Support leaders must emotionally pay their troops. They must understand what constitutes success for the supported unit and how their unit can contribute to it. This lets the leader convert victory credits to victory currency to pay his soldiers.

Emotionally paying support troops is a special challenge for CSS leaders that live in areas that combat troops call the region of PUNTS. During the Korean conflict, troops in the rear echelon group were less effective and had more stress reactions than front-line or combat zone troops. This was due to boredom and not seeing their contribution to the effort.⁷²

The organizational bonds to a combat unit will be very abstract in rear echelons. There will be few opportunities for shared experiences between supporting and supported. In spite of these difficulties leaders must work to form organizational bonds, even if they are abstract, with the combat units. This is the only way the leader can pay his support soldiers in victory currency. If leaders do not pay their troops in some form of victory currency they will probably start paying them in internal currency. The result is never good for combat power.

The exploration of the Land of CSS is complete. We have examined who the inhabitants are, how they become citizens, where they live, and how they make a living. The last part of our exploration examined their economic system for controlling emotional currency. It is time to return to the base camp to write the conclusions of the exploration.

4. CONCLUSIONS

This exploration set out to answer the questions of: (1) What is cohesion? (2) What are its component parts? (3) How do units build cohesion? (4) What do CSS soldiers and leaders need to do to put cohesion to work as a combat multiplier? The introduction also stated that the answers to these questions would lead to the conclusion that *CSS leaders will gain the full combat power of cohesion as a combat multiplier only when they form an organizational bond to the supported unit, and teach their soldiers to measure success by the success of the combat unit.* Looking back on our journey we see that the answers to the questions are in the base camp and exploration notes.

The foundation of the base camp laid out basic principles on cohesion. These included the isolation a soldier feels on the modern battlefield, the need for moral cohesion, teamwork, discipline, and the unchanging nature of the human heart. The foundation introduced the idea of a moral shield created from the belief that fellow soldiers would do their duty. This moral shield would replace the ones that had served the soldiers of Thucydides' day so well.

During construction of the first hut we defined cohesion as *"the ability of a military unit to hold together, to sustain mission effectiveness despite combat stress."* This definition never failed us during the exploration. It worked whether we were looking at bonding, physical fitness, tactical skills, or logistics.

The four components of cohesion; horizontal bonding, vertical bonding, organizational bonding, and societal bonding are on display in the second hut. The hut contains information on each component.

The third hut contains information on building cohesion, including: the group AAR, shared experiences, and accelerating cohesion time. By the time we finished the hut we covered vigorous training, physical fitness, tactical proficiency, family

factors, and the relationships between fear, fatigue, and strength.

Looking back at the third hut we see that units build cohesion through shared experiences. Shared experiences grow out of vigorous training reinforced by group AARs.

The base camp provided the answers to the first three questions, and will help to answer what CSS soldiers and leaders need to do to put cohesion to work as a combat multiplier. Answering this question will require a closer analysis of the exploration of the Land of CSS. The Lego Model will be useful in this analysis.

The Lego Model does not use a special type of block for CSS soldiers. The foundation of the camp taught us that the heart of man does not change and that soldiers fear isolation. Nothing in the exploration leads to a conclusion that the support soldier has a stronger heart than the combat soldier; or that he does not fear isolation. Yet, in spite of this, support soldiers are sent out alone, or perhaps in twos, to accomplish a mission. The vacuum of loneliness and isolation stands ready to swallow them in the same way a vacuum cleaner ingests individual Lego blocks.

Horizontal and vertical bonding are always the same type of structure in the model. Interpersonal bonds are the same whether soldiers are combat or service support troops. Even organizational bonding is essentially the same; differing only in the requirement for a support unit to always have a second layer of organizational bonding since the base does not have holes for wheels. What differs is the reinforcement of the bonds.

During the exploration of the Land of CSS we examined the economics of emotional currency. The support leader who forms an organizational bond with a combat unit and ties his unit's success directly to the success of the combat unit puts his unit into the circular relationship of success to cohesion. His soldiers earn victory credits and get paid in victory currency. On the other hand, when a support unit sets up internal currency they do not

form a bond with a combat unit. The model reminds us that a support unit that is not bonded to a combat unit is static, and not part of a dynamic combat vehicle that applies combat power to the enemy.

What do CSS soldiers and leaders need to do to put cohesion to work as a combat multiplier? (1) Treat individual soldiers the same as you would treat a combat soldier. (2) Use the same techniques for horizontal, vertical, and organizational bonding as for the infantryman with the exception of defining success. Success for support soldiers must be based upon the success of the supported unit. (3) Always create organizational bonds that will attach the supporting unit to a supported unit base that can be combat empowered.

The answer to the last question leads to the conclusion that *CSS leaders will gain the full combat power of cohesion as a combat multiplier only when they form an organizational bond to the supported unit, and teach their soldiers to measure success by the success of the combat unit.*

Our exploration is complete. Before we leave the base camp for home we might ask ourselves if making explorations about military subjects is still worthwhile. Perhaps this quotation will provide the answer.

The future seems to belong to democracy. . . . It [military organization] will presently perish for the lack of sustenance of life, when having no more foreign enemies to vanquish, to watch, to fight for control, it will have no reason for existence.

The brother of Colonel Ardant du Picq
October, 1913.⁷³

That was written seventy-eight years, and many wars ago.

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¹ William Shakespeare, The Complete Works of William Shakespeare. (London: Octopus Books, 1986), 478.

² U.S. Army Armored School, The Defense of St. Vith Belgium, 17-23 December, 1944: An Historical Example of Armor in the Defense (U.S. Army Armored School, 1949), p. 38.

³ Recommendation for the Presidential Unit Citation: 7th Armored Division. June 27, 1947 (In the files of the Combined Arms Research Library, Fort Leavenworth, KS), p. 37.

⁴ Ardant du Picq, "Battle Studies: Ancient and Modern Battle," trans. Colonel John N. Greeley and Major Robert C. Cotton, Roots of Modern Strategy Book 2 (Harrisburg, PA: Stackpole Books, 1987), p. 157.

⁵ Nora Kinzer Stewart, Mates & Muchachos: Unit Cohesion in the Falklands/Malvinas War (McLean, VA: Brassey's Inc., 1991), p. 21.

⁶ I. N. Evonic, "Motivation and Morale in Military Non-Combat Organizations," Proceedings of the Symposium on Motivation and Morale in the NATO Forces (Brussels, Belgium, Sep. 1980), p. 204.

⁷Du Picq, p. 141.

⁸ Thucydides, History of the Peloponnesian War, trans. Rex Warner (London: Penquin Books, 1972), p. 392.

* John Keegan, The Face of Battle (New York: Penquin Books, 1984), p. 185.

¹⁰ Lord Moran, The Anatomy of Courage, (London: Constable & Company, 1987), p. xix.

¹¹ Keegan, p. 180.

¹² Du Picq, p. 125.

¹³ Du Picq, p. 137.

¹⁴ Du Picq, p. 123-124.

¹⁵ Du Picq, p. 135.

¹⁶ Moran, p. xix.

¹⁷ Du Picq, p. 180.

¹⁸ Du Picq, p. 255.

¹⁹ S. L. A. Marshall, Men Against Fire: The Problem of Battle Command in Future War (Gloucester, MA, 1978), p. 65

²⁰ Anthony Kellet, Combat Motivation: The Behavior of Soldiers in Battle (Boston: Kluwer-Nijhoff, 1982), adopts the feeling based definition as does Stewart in Mates and Michachos. Richard A. Gabriel and Paul L. Savage, Crisis in Command: Mismanagement in the Army (New York: Hill and Wang, 1978), and William L. Hauser, "The Will to Fight," Combat Effectiveness: Cohesion, Stress, and the Volunteer Military, ed. Sam C. Sarkesian (Beverly Hills, CA, 1980), adopt a mission oriented definition.

Sam C. Sarkesian, "Combat Effectiveness," Combat Effectiveness: Cohesion, Stress, and the Volunteer Military, adopts a definition that straddles the line between commitment and attitude. Wm. Darrel Henderson, Cohesion the Human Element in Combat (Washington, D.C.: National Defense University Press, 1985) uses a commitment to goal definition. LTC Larry H. Ingraham and Major Frederick J. Manning, "Cohesion: Who Needs It, What Is It and How Do We Get It to Them," Military Review, LXI (June 1981), base their definition on belonging.

²¹ U.S. Army, DA Pam 350-2, Developing and Maintaining Unit Cohesion (Washington: Department of the Army, 1982), p. 3.

²² U.S. Army, FM 22-9, Soldier Performance in Continuous Operations (Washington, DC: Department of the Army, 1983), p. 2-14.

²³ U.S. Army, FM 22-100, Military Leadership (Washington, DC: Department of the Army, 1990), p. 42.

²⁴ Du Picq, p. 230.

²⁵ Hauser, p. 204.

²⁶ Stewart, p. 27.

²⁷ Stephen D. Westbrook, "The Potential For Military Disintegration," Combat Effectiveness: Cohesion, Stress, and The Volunteer Military, ed. Sam C. Sarkesian (Beverly Hills, CA: Sage Publications, 1980), p. 252.

²⁸ Stewart, p. 28.

²⁸ LTC John G. Fowler, "Combat Cohesion in Vietnam," Military Review, LIX. 12 (December, 1979), P. 25.

²⁹ Henderson, p. xvii.

³¹ Anne Hoiberg, "Military Staying Power," Combat Effectiveness: Cohesion, Stress, and The Volunteer Military, ed. Sam C. Sarkesian (Beverly Hills, CA: Sage Publications, 1980), p. 232.

³² Marshall, Men Against Fire, p. 155.

³³ Stewart, p. 28.

³⁴ Erwin Rommel, Attacks (Vienna, VA: Athena Press, 1979), p. 62.

³⁵ Stewart, p. 128.

³⁶ Stewart, p. 113, 120, 141.

³⁷ Stewart, p. 28.

³⁸ Stewart, p. 87.

³⁹ Westbrook, p. 252.

⁴⁰ N.P. Mikhnevich, "Osnovy strategii (St. Petersburg, 1913) quoted in Walter Pintner, "Russian Military Thought: The Western Model and the Shadow of Suvorov," Makers of Modern Strategy: from Machiavelli to the Nuclear Age, ed. Peter Paret (Princeton, NJ: Princeton University Press, 1986), p. 373.

⁴¹ Stewart, p. 29.

⁴² Roger Kaplan, "Army Unit Cohesion in Vietnam: A Bum Rap," Parameters, XVII.3 (September, 1987), P. 66.

⁴³ Hauser, p. 190-191.

⁴⁴ S. L. A. Marshall, Island Victory: The Battle for Kwajalein (Washington, DC: Zenger Publishing Co., 1982), p. 2.

⁴⁵ Marshall, Island Victory, p. 1-6.

⁴⁶The 207 day figure was derived as follows:

365 Days in a year.

-104 Weekend days.

- 30 Days leave.

- 10 Federal holidays.

- 4 "Training holidays traditionally given with
_____Thanksgiving, Christmas, and July 4.

217 Garrison Duty Days.

Ten hours a day is based upon a 0630-1630 duty day. Ten soldiers is based on an "average squad." This is probably at the upper end of the spectrum. Many soldiers work in smaller sections, teams, or crews.

⁴⁷ Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), p. 189.

⁴⁸ John Baynes, Morale: A Study of Men and Courage, (Garden City Park, NY: Avery Publishing Group, 1988), p. 150.

⁴⁹ Baynes, p. 151.

⁵⁰ Ingraham and Manning, p. 5.

⁵¹ Kellet, p. 181.

⁵² Kellett, p. 184.

⁵³ Kellett, p. 322.

⁵⁴ Marshall, Men Against Fire, p. 173.

⁵⁵ S. L. A. Marshall, The Soldier's Load and the Mobility of a Nation (Quantico, VA: The Marine Corps Association, 1980), p. 43-44.

⁵⁶ Quoted in, Willard Latham, "Leadership at Fort Benning," (Fort Benning Georgia, U. S. Army Infantry School, 1986).

⁵⁷ Marshall, Men Against Fire, p. 173.

⁵⁸ Colonel James W. Townsend, Advanced Operational Studies Fellow at the U.S. Army School of Advanced Military Studies, suggested this idea.

⁵⁹ Lego is a registered trademark of INTERLEGO AG.

⁶⁰ Omar N. Bradley, A Soldier's Story (New York: Henry Holt and Co, 1951), p. 448.

⁶¹ Evonic, p. 186.

⁶² For a complete description of the structure and mission of the Forward Support Battalion refer to FM 63-20, Forward Support Battalion (Washington, DC: Department of the Army, 1985).

⁶³ For a complete description of the mission and structure of the Main Support Battalion refer to FM 63-21, Main Support Battalion (Washington, DC: Department of the Army, 1986).

⁶⁴ This is a term that evolved during Operations Desert Shield and Desert Storm. It appears to be a sanitized version of a Vietnam era term referring to people in rear echelons.

⁶⁵ William Craig, Enemy at the Gates: The Battle for Stalingrad (New York: Ballantine Books, 1973), p. 283.

⁶⁶ Stewart, p. 24.

⁶⁷ Sun Tzu, The Art of War, ed. and trans. Samuel B. Griffith (London: Oxford University Press, 1971), p. 73.

⁶⁸ Westbrook, p. 267.

⁶⁹ Craig, p. 333.

⁷⁰ Stewart, p. 74-75.

⁷¹ Defense of St. Vith, p. 36.

⁷² A. David "Stress Reactions of Military Personnel," Proceedings of the AMEDD Psychology Symposium (Fort Sam Houston, TX: U. S. Army Academy of Health Sciences, 1980), p. 210.

⁷³ Du Picq, p. 41.

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